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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,311	02/09/2004	Akio Kawabata	040047	6643
23850 7590 01/15/2008 KRATZ, QUINTOS & HANSON, LLP 1420 K Street, N.W. Suite 400 WASHINGTON, DC 20005			EXAMINER DIAZ, JOSE R	
			ART UNIT 2815	PAPER NUMBER
			MAIL DATE 01/15/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/773,311		KAWABATA ET AL.	
	Examiner		Art Unit	
	José R. Díaz		2815	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 6-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/2/04; 3/23/07</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group I, e.g. claims 2-5, in the reply filed on November 2, 2007 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
3. The following title is suggested: **Electronic device having structure of ohmic connection to carbon element cylindrical structure body.**

Claim Objections

4. Claim 1 is objected to because of the following informalities:
- a. Claim 1, line 4: after "inside" please change "the" to --a--.
 - b. Claim 1, line 4: after "junction part of" please change "a" to --the--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Hoppe et al. (US 2002/0167375 A1).

Regarding claim 1, Hoppe teaches an electronic device having a structure (20) of an ohmic connection to a carbon element cylindrical structure body (18) [see fig. 1], wherein a metal material [consider the nickel material within the catalyzing Ti/Ni alloy, as disclosed in paragraph 0051, line 15] is positioned inside the junction part of a carbon element cylindrical structure body (18) [Please note that Hoppe, in paragraph 0051, lines 4-7 and 10-15, and paragraph 0052, lines 1-2, teaches that carbon nanotube 18 is grown by CVD on the surface of the catalyzing Ti/Ni alloy, which results in the formation of nickel in the inside at the root of the growing carbon nanotube] joined to a connection objective [consider the catalyzing metal alloy formed of Ti/Ni alloy, as disclosed in paragraph 0051, line 15] and the carbon element cylindrical structure body (18) and the connection objective [consider the catalyzing metal alloy formed of Ti/Ni alloy as disclosed in paragraph 0051, line 15] are connected by an ohmic contact [Please note that an ohmic contact is formed between the catalyzing Ti/Ni alloy and carbon nanotubes 18 simultaneously with the growth of carbon nanotubes from the catalyzing Ti/Ni alloy].

In addition, it is noted that the structure recited in Hoppe is substantially identical to that of the claims, hence any claimed properties of functions are presumed to be inherent. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990); *In*

re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977); and *Titanium Metals Corp. v Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). As such, Hoppe anticipates the claimed invention.

Regarding claim 2, Hoppe teaches that said metal material is, for example, Ni, or an alloy containing at least one of Ni [consider the nickel material of the catalyzing Ti/Ni alloy as disclosed in paragraph 0051, line 15].

Regarding claim 3, Hoppe teaches that the material of said connection objective is Ti [consider the titanium material of the catalyzing Ti/Ni alloy as disclosed in paragraph 0051, line 15].

Regarding claim 4, Hoppe teaches that said connection objective (consider the catalyzing metal alloy formed of Ti/Ni alloy as disclosed in paragraph 0051, line 15) is a part of the wiring (20) in an electronic device (RF filter device) [consider the RF filter device as disclosed in fig. 1 and abstract].

Regarding claim 5, Hoppe teaches that said carbon element cylindrical structure body (18) is a carbon nanotube [see paragraph 0052, line 12; and figure 3c].

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Awano (US 7,084,507 B2) discloses growing carbon nanotube by CVD on a surface of a catalytic material.

Correspondence

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to José R. Díaz whose telephone number is (571) 272-1727. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Parker can be reached on (571) 272-2298. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



José R. Díaz
Examiner
Art Unit 2815